#### BEFORE THE PUBLIC UTILITIES COMMISSION

#### OF THE STATE OF HAWAII

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ALEXANDER & BALDWIN, INC. through its division
HAWAIIAN COMMERCIAL & SUGAR COMPANY'S RESPONSES TO
INFORMATION REQUESTS FROM HAWAIIAN ELECTRIC COMPANY AND
THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
REGARDING ITS OPENING STATEMENT OF POSITION AND PROPOSAL FOR
FEED-IN TARIFF DESIGN, POLICIES AND PRICING METHODS

AND

# CERTIFICATE OF SERVICE

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Attorney for ALEXANDER & BALDWIN, INC. through its division HAWAIIAN COMMERCIAL & SUGAR COMPANY

# DEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII

In the Matter of the Application of		
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PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the	)	
Implementation of Feed-in Tariffs.	)	
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ALEXANDER & BALDWIN, INC. through its division
HAWAIIAN COMMERCIAL & SUGAR COMPANY'S
RESPONSES TO INFORMATION REQUESTS FROM
HAWAIIAN ELECTRIC COMPANY AND THE DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT AND TOURISM
REGARDING ITS OPENING STATEMENT OF POSITION AND PROPOSAL FOR
FEED-IN TARIFF DESIGN, POLICIES AND PRICING METHODS

Pursuant to the Commission's Order Approving the HECO Companies' Proposed

Procedural Order, as Modified, filed on January 20, 2009, Alexander & Baldwin, Inc., through
its division Hawaiian Commercial & Sugar Company hereby submits the following Responses to
Information Requests from the HECO Companies and the Department of Business, Economic
Development and Tourism on its Opening Statement of Position and Proposal for Feed-in Tariff
Design, Policies and Pricing Methods.

Respectfully submitted.

DATED: Honolulu, Hawaii, March 13, 2009.

SANDRA-ANN Y.H. WONG

Attorney for Alexander & Baldwin, Inc. through its division Hawaiian Commercial

& Sugar Company

Do you agree that in addition to achieving a greater level of renewable energy for the State, reliability, power quality and ratepayer impacts are important considerations that must be addressed as a part of any feed-in tariff (FIT) design? If not, please discuss why not.

# RESPONSE:

Yes. However, it is important to keep in mind that a feed-in tariff is a *price* specification designed to economically motivate the rapid development of renewable energy generation.

Do you agree that the HECO, MECO and HELCO systems have different technical and reliability considerations? If not, please discuss why not.

# RESPONSE:

HC&S is unable to answer this question because it is only familiar with the MECO system on Maui.

Do you agree that due to the existing and/or anticipated levels of intermittent renewable resources on each island system, that there may be technical and/or operational constraints upon the amount of additional intermittent renewable energy that each island system can absorb? If not, please discuss why not.

# RESPONSE:

Yes.

How does your FIT proposal insure that reliability and power quality on each island electric system are maintained?

# RESPONSE:

Biomass is a firm power source which helps to regulate the system which insures reliability and power quality. Also, because biomass is a firm power source it permits the utilities to accept more intermittent renewables onto its system.

What specific data, evaluations, studies or analyses did you rely upon as a part of any conclusion that your FIT proposal insures reliability on each island system? Please provide that data, evaluations, studies and/or analyses to the extent they are available.

#### RESPONSE:

In the early 1990s, biomass was the leading source of renewable energy generation according to data provided in the "State of Hawaii Data Book 2007". The contribution of biomass as a primary energy source has also been reported over the years in the "State of Hawaii Energy Resources Coordinator Annual Report" published by the State DBED&T. In the 1980s when more sugar cane plantations were operating, biomass energy provided nearly 10% of the State's energy supply. For the islands of Kauai, Maui, and Hawaii the percentage of biomass energy production was even higher. There is clearly enough past evidence to show that biomass energy production can provide significant amounts of reliable renewable energy and a properly structured FIT proposal could benefit existing biomass energy producers and create incentives for new biomass energy producers.

As variable generation is presently having an adverse impact on a system's reliability, how would your FIT proposal mitigate any further adverse impacts?

# RESPONSE;

See response to HECO/HC&S-IR-4.

Do you agree that your FIT proposal could result in increases in the rates paid by utility ratepayers? If so, what do you view as an acceptable level of increase for each of the utility system's ratepayers? What do you base that opinion on? Please provide any evaluations or analyses or studies used to support this opinion.

The utility ratepayers may experience an increase in the short-run, but in the long-run (over the 20 year term of the FIT contract) the utility ratepayer will experience: (i) stable and fixed rates; (ii) a relative decrease in rates if the price of oil continues rising in the next 20 years; and (iii) economic growth generally because the use of renewables will create a "green" industry and the use of biomass will keep the agricultural industry alive in the State of Hawaii, thus creating job opportunities in Hawaii and reducing the amount of dollars exported from the state to purchase fossil fuels.

How does your FIT proposal insure that ratepayers within each of the three utility service territories do not receive significant rate increases?

# RESPONSE:

N/A.

What specific data, evaluations, studies or analyses did you rely upon as a part of any conclusion that your FIT proposal insures that ratepayers within each of the three utility service territories do not receive significant rate increases? Please provide that data, evaluations, studies and/or analyses to the extent they are available.

# RESPONSE:

In terms of equivalent barrels of oil saved from biomass energy sources, data were provided in the report "1995 Hawaii Renewable Energy Data Report" produced for the State DBED&T in April 1997 for each of the three utility service territories mentioned. Published data provided in this report show that from the period 1980-1995, more than 13.5 million bbl of oil were saved in the combined three utility service areas through biomass bagasse electricity generation. A FIT proposal for a 20 year term could provide benefits to ratepayers that were previously mentioned in HECO/HC&S-IR-7.

Do you agree that competitive bidding can provide benefits to ratepayers? If so, how does your proposal insure that ratepayers receive the benefits that competitive bidding can provide?

# RESPONSE:

Yes. However to date, it has not been successful in encouraging the deployment of more renewable energy on the utilities' systems.

One of the most significant benefits of competitive bidding is lower prices for the ratepayers. FITs are able to provide this same benefit. See response to HECO/HC&S-IR-7.

Please explain why a feed in tariff should be applied to larger resources, rather than competitively bid to assure ratepayers the lowest prices for significant blocks of renewable energy?

#### **RESPONSE:**

In order to meet the penetration goals of the Hawaii Clean Energy Initiative feed in tariffs must be applied to larger resources. To competitively bid larger resources would take too long. Also, FIT will encourage more renewable energy developers into (and to remain in) the market because it would provide them with a set price, while with competitive bidding they must incur the cost of preparing the bid and, yet have no guarantees as to whether or not they will be awarded the project. Such speculation in competitive bidding raises the cost of capital for the developer.

Do you agree that if a Renewable Energy Generating Facility is unable to meet the technical requirements set forth in the utilities' rules relating to interconnection with the utility's electric system, that Renewable Energy Generating Facility should not be interconnected with the utility's electric system? If not, please discuss why not.

# RESPONSE:

Yes, as long as the interconnection rules and requirements are applying best practices.

Do you agree that, as an electric system must remain in balance, if there is a greater amount of energy being generated in relation to load being served that generation must be reduced or curtailed to achieve system balance (assuming that load cannot be increased)? If not, please describe how the system balance can otherwise be achieved.

# RESPONSE:

Yes.

Please explain how your proposal to require the utility to take all renewable energy generated by a FIT resource regardless of system need assures system balance and stability?

#### RESPONSE:

HC&S' proposal does not require the utility to take all renewable energy generated by a FIT resource regardless of system need assures system balance and stability. The HC&S proposal does require the utility to pay for all renewable energy generated by a FIT resource regardless of system need assures system balance and stability.

Is it your position that FIT resources may not be curtailed under any circumstance? If there are circumstances under which a FIT resource may be curtailed, please explain in detail how that curtailment would be accomplished. Please explain in detail how existing renewable projects fit into any curtailment order and the basis for assigning a lower curtailment priority to existing renewable resources.

#### RESPONSE:

No.

It is the utilities' decision as to how curtailments will be accomplished. To the extent that curtailment will be based upon the economics of the utilities, HC&S assumes that the utilities will take into account that under HC&S' proposal FIT generators will be paid even if they are curtailed.

HC&S does not understand what is meant by "lower curtailment priority". If it means that existing renewable resources should be curtailed after FIT generation the answer is yes.

Please provide any evaluations, studies or analyses to support the following in your FIT proposal: (1) the inclusion of each renewable resource type; (2) the viability of each renewable resource type for each island system; (3) the project size demarcations for each renewable resource type; (4) the viability of each project size for each island system; and (5) the basis for a different or separate rate for each size demarcation (if applicable). This should include any information or evidence that you may have on the general or specific plans of any renewable resource developer to develop renewable resources of this type, and including the anticipated size of the project, on any island system within the next one, three and five years.

#### RESPONSE:

The FIT is modeled after the German feed-in tariff that has proven successful in encouraging the rapid development of large-scale renewable energy generation at low cost to the public.

HC&S has no information or evidence on any general or specific plans of any renewable resource developer to develop renewable resources of this type.

Please describe the methodology and rationale used to determine the proposed twenty (20) year terms in your FIT proposal for each technology. Please provide any evaluations, studies or analyses to support the proposed 20 years terms for each technology listed.

#### RESPONSE:

The proposed twenty (20) year term came from HECO/CA's proposed FIT tariff sheets for PV. It is also modeled after the 20-year terms of the German feed-in tariff that has proven successful in encouraging the rapid development of large-scale renewable energy generation at low cost to the ratepaying public.

Please provide the bases for the proposed penetration limits for intermittent renewable energy sources. Please provide any evaluations, studies or analyses to support the proposed penetration limits, including in particular any evaluations, studies or analyses regarding maintenance of system reliability at the proposed penetration limits.

# RESPONSE:

HC&S adopted the proposed penetration limits of Zero Emissions Leasing. See HECO/ZEL-IR-18.

Please explain in detail how the proposed queuing procedures based upon those procedures proposed by the Midwest ISO would operate and be implemented for each island electric system. In particular, please provide any evaluations, studies or analyses of potential differences between the Midwest ISO service territory and the Hawaii utility electric systems and how those differences would be accommodated and addressed through your FIT proposal. Please discuss in detail whether the quality of power (steadiness, predictability, ability to enhance regulating resources on the grid and other such characteristic that are important to power reliability) should be a factor in setting the priority a project receives, and if not, why not.

#### RESPONSE:

The Midwest ISO queuing procedure<sup>1</sup> could operate and be implemented for each island electric system without significant modification.

Power quality and power reliability are factors affecting whether a project meets the utility's technical requirements for interconnection and, therefore, whether it is "ready-to-interconnect," but should not themselves be a factor in determining the priority that a project receives under the utility's queue management procedure for interconnection.

See Midwest Independent Transmission System Operator ("Midwest ISO"), Generator Interconnection Process
Tariff (August 25, 2008) http://www.midwestmarket.org/publish/Document/25f0a7\_11c1022c619\_7d600a48324a/Attachment%20X%20GIP.pdf?action=download&\_property = Attachment; Midwest ISO, Business
Practices Manual: Generator Interconnection (Manual No. 15, TP-BPM-004-r2, January 6, 200p)
http://www.midwestmarket.org/publish/Document/45e84c\_11cdc615aa1\_-7e010a48324a; 124 FERC ¶ 61,183,
Midwest Independent Transmission System Operator, Inc., Docket No. ER08-1169-000, Order Conditionally
Accepting Tariff Revisions and Addressing Queue Reform (August 25, 2008)
http://elibrary.ferc\_gov/idmws/doc\_info/asp?document\_id=13641108; Working group for Investment in Reliable &
Economic electric Systems (WIRES). Integrating Locationally-Constrained Resources Into Transmission Systems:
A Survey of U.S. Practices (October 2008) http://www.wiresgroup.com/images/WIRES\_Report\_LCR.pdf

Should a utility be entitled to use the generated output of a renewable resource in its service territory toward meeting a state or county mandated RPS standard regardless of ownership of the environmental credits? If not, please discuss why not?

# RESPONSE:

HC&S is unable to respond to this question because it is not the authorizing entity in regards to RPS standards.

Please provide any evaluations, studies, analyses or data to support the rates contained in your FIT proposal including detailed support for the applicability of those rates to the specified resources on the Hawaii utilities' island systems.

#### RESPONSE:

The rates were taken from the feed-in tariff schedule in effect in Germany as of September  $2008^2$ , converted from Euros into US Dollars at the exchange rate of  $\epsilon$ .6812:\$1.0000 quoted as of September 23, 2008.<sup>3</sup> and inflated by 25% to take into account inflation and the increased cost of doing business in Hawaii.

<sup>&</sup>lt;sup>2</sup> The Germany feed-in tariff rates were obtained from the Tables of Renewable Tariffs or Feed-in Tariffs Worldwide published by Wind-Works.org at <a href="http://www.wind-works.org/FeedLaws-TableofRenewableTariffsorFeed-InTariffsWorldwide.html">http://www.wind-works.org/FeedLaws-TableofRenewableTariffsorFeed-InTariffsWorldwide.html</a>

Yahoo! Finance Currency Converter (September 23, 2008).

Please explain how your proposed rates are affected by the key costs and operating characteristics referenced in the Commission's NRRI Scoping Paper filed December 11, 2008.

# RESPONSE:

The key costs and operating characteristics referenced in the Commission's NRRI Scoping Paper are relevant, but not determinative of the incentive FIT rate that attracts investment necessary to achieve rapid development of large-scale renewable energy generation at low cost to the public. Figures for these key costs and operating characteristics set a lower bound on the desired FIT rate, but do not account for risks, delays, legal and regulatory uncertainties, and the willingness or unwillingness of the utility and the Consumer Advocate to play by the rules. Investors have to take all such risks into account, and will take all such risks into account, in deciding whether to fund the development of renewable energy projects in Hawaii.

# DBEDT-IR-1-HC&S: Ref. Schedule FIT, Pages 4-9.

Please provide all the workpapers and data used to determine the proposed feed-in tariff rates in the referenced pages.

# RESPONSE:

See response to HECO/HC&S-IR-21.

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The foregoing Responses to Information Requests were served on the date of filing by

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